SEQUENCE LISTING

<110> Smit, John

<120> PRODUCTION OF HETEROLOGOUS POLYPEPTIDES
FROM FRESHWATER CAULOBACTER

<130> 08106-005001

<140> 09/913,414
<141> 2001-08-13

<150> PCT/CA00/00173
<151> 2000-02-21

B1

<150> CA 2261186
<151> 1999-02-19

<160> 7

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 82
<212> PRT
<213> Caulobacter crescentus

<400> 1

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Tyr	Leu	Asp	Ala	Ala	Ala	Ala	Gly	Asp	Gly	Ser	Gly	Thr	Ser	Val	Ala
			20					25					30		
Lys	Trp	Phe	Gln	Phe	Gly	Gly	Asp	Thr	Tyr	Val	Val	Val	Asp	Ser	Ser
		35					40					45			
Ala	Gly	Ala	Thr	Phe	Val	Ser	Gly	Ala	Asp	Ala	Val	Ile	Lys	Leu	Thr
	50					55					60				
Gly	Leu	Val	Thr	Leu	Thr	Thr	Ser	Ala	Phe	Ala	Thr	Glu	Val	Leu	Thr
65					70					75					80
Leu	Ala														

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<210> 4
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<212> PRT
<213> Caulobacter crescentus

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Leu Val Ala Arg Pro Ala Val Ile Thr Ala Met Val Phe Ser Phe Phe
20 25 30
Ile Asn Ile Leu Ala Leu Val Ser Pro Leu Tyr Met Leu Gln Val Tyr
35 40 45
Asp Arg Val Leu Thr Ser Arg Asn Val Ser Thr Leu Ile Val Leu Thr
50 55 60
Val Ile Cys Val Phe Leu Phe Leu Val Tyr Gly Leu Leu Glu Ala Leu
65 70 75 80
Arg Thr Gln Val Leu Val Arg Gly Gly Leu Lys Phe Asp Gly Val Ala
85 90 95
Arg Asp Pro Ile Phe Lys Ser Val Leu Asp Ser Thr Leu Ser Arg Lys
100 105 110
Gly Ile Gly Gly Gln Ala Phe Arg Asp Met Asp Gln Val Arg Glu Phe
115 120 125
Met Thr Gly Gly Leu Ile Ala Phe Cys Asp Ala Pro Trp Thr Pro Val
130 135 140
Phe Val Ile Val Ser Trp Met Leu His Pro Phe Phe Gly Ile Leu Ala
145 150 155 160
Ile Ile Ala Cys Ile Ile Ile Phe Gly Leu Ala Val Met Asn Asp Asn
165 170 175
Ala Thr Lys Asn Pro Ile Gln Met Ala Thr Met Ala Ser Ile Ala Ala
180 185 190
Gln Asn Asp Ala Gly Ser Thr Leu Arg Asn Ala Glu Val Met Lys Ala
195 200 205
Met Gly Met Trp Gly Gly Leu Gln Ala Arg Trp Arg Ala Arg Arg Asp
210 215 220
Glu Gln Val Ala Trp Gln Ala Ala Ala Ser Asp Ala Gly Gly Ala Val
225 230 235 240
Met Ser Gly Ile Lys Val Phe Arg Asn Ile Val Gln Thr Leu Ile Leu
245 250 255
Gly Gly Gly Ala Tyr Leu Ala Ile Asp Gly Lys Ile Ser Ala Gly Ala
260 265 270
Met Ile Ala Gly Ser Ile Leu Val Gly Arg Ala Leu Ala Pro Ile Glu
275 280 285
Gly Ala Val Gly Gln Trp Lys Asn Tyr Ile Gly Ala Arg Gly Ala Trp
290 295 300
Asp Arg Leu Gln Thr Met Leu Arg Glu Glu Lys Ser Ala Asp Asp His
305 310 315 320
Met Pro Leu Pro Glu Pro Arg Gly Val Leu Ser Ala Glu Ala Ala Ser
325 330 335
Ile Leu Pro Pro Gly Ala Gln Gln Pro Thr Met Arg Gln Ala Ser Phe

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            340                 345                 350
Arg Ile Asp Ala Gly Ala Ala Val Ala Leu Val Gly Pro Ser Ala Ala
        355                 360                 365
Gly Lys Ser Ser Leu Leu Arg Gly Ile Val Gly Val Trp Pro Cys Ala
    370                 375                 380
Ala Gly Val Ile Arg Leu Asp Gly Tyr Asp Ile Lys Gln Trp Asp Pro
385                 390                 395                 400
Glu Lys Leu Gly Arg His Val Gly Tyr Leu Pro Gln Asp Ile Glu Leu
                405                 410                 415
Phe Ser Gly Thr Val Ala Gln Asn Ile Ala Arg Phe Thr Glu Phe Glu
            420                 425                 430
Ser Gln Glu Val Ile Glu Ala Ala Thr Leu Ala Gly Val His Glu Met
        435                 440                 445
Ile Gln Ser Leu Pro Met Gly Tyr Asp Thr Ala Ile Gly Glu Gly Gly
    450                 455                 460
Ala Ser Leu Ser Gly Gly Gln Arg Gln Arg Leu Ala Leu Ala Arg Ala
465                 470                 475                 480
Val Phe Arg Met Pro Ala Leu Leu Val Leu Asp Glu Pro Asn Ala Ser
                485                 490                 495
Leu Asp Gln Val Gly Glu Val Ala Leu Met Glu Ala Met Lys Arg Leu
            500                 505                 510
Lys Ala Ala Lys Arg Thr Val Ile Phe Ala Thr His Lys Val Asn Leu
        515                 520                 525
Leu Ala Gln Ala Asp Tyr Ile Met Val Ile Asn Gln Gly Val Ile Ser
    530                 535                 540
Asp Phe Gly Glu Arg Asp Arg Cys Trp Pro Ser
545                 550                 555

<210> 5
<211> 435
<212> PRT
<213> Caulobacter crescentus

<400> 5
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 1               5                  10                  15
Ala Arg Ile Gly Tyr Gly Ile Ile Ala Leu Thr Phe Val Gly Leu Leu
            20                  25                  30
Gly Trp Ala Ala Phe Ala Pro Leu Asp Ser Ala Val Ile Ala Asn Gly
        35                  40                  45
Val Val Ser Ala Glu Val Ser Gln Asp Val Gln His Leu Glu Gly Gly
    50                  55                  60
Met Leu Ala Lys Ile Leu Val Arg Glu Gly Glu Lys Val Lys Ala Gly
65                  70                  75                  80
Gln Val Leu Phe Glu Leu Asp Pro Thr Gln Ala Asn Ala Ala Ala Gly
                85                  90                  95
Ile Thr Arg Asn Gln Tyr Val Ala Leu Lys Ala Met Glu Ala Arg Leu
            100                 105                 110
Leu Ala Glu Arg Asp Gln Arg Pro Ser Ile Ser Phe Pro Ala Asp Leu
        115                 120                 125
Thr Ser Gln Arg Ala Asp Pro Met Val Ala Arg Ala Ile Ala Asp Glu
    130                 135                 140
Gln Ala Gln Phe Thr Glu Arg Arg Gln Thr Ile Gln Gly Gln Val Asp
145                 150                 155                 160
Leu Met Asn Ala Gln Arg Leu Gln Tyr Gln Ser Glu Ile Glu Gly Ile
                165                 170                 175
Asp Arg Gln Thr Gln Gly Leu Lys Asp Gln Leu Gly Phe Ile Glu Asp
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            180                 185                 190
Glu Leu Ile Asp Leu Arg Lys Leu Tyr Asp Lys Gly Leu Val Pro Arg
        195                 200                 205
Pro Arg Leu Leu Ala Leu Glu Ala Arg Ala Gly Ser Leu Ser Gly Ser
    210                 215                 220
Ile Gly Arg Leu Thr Ala Asp Arg Ser Lys Ala Val Gln Gly Ala Ser
225                 230                 235                 240
Asp Thr Gln Leu Lys Val Arg Gln Ile Lys Gln Glu Phe Phe Glu Gln
                245                 250                 255
Val Ser Gln Ser Ile Thr Glu Thr Arg Val Arg Leu Ala Glu Val Thr
            260                 265                 270
Glu Lys Glu Val Val Ala Ser Asp Ala Gln Lys Arg Ile Lys Ile Val
        275                 280                 285
Ser Pro Val Asn Gly Thr Ala Gln Asn Leu Arg Phe Phe Thr Glu Gly
    290                 295                 300
Ala Val Val Arg Ala Ala Glu Pro Leu Val Asp Ile Ala Pro Glu Asp
305                 310                 315                 320
Glu Ala Phe Val Ile Gln Ala His Phe Gln Pro Thr Asp Val Asp Asn
                325                 330                 335
Val His Met Gly Met Val Thr Glu Val Arg Leu Pro Ala Phe His Ser
            340                 345                 350
Ala Gly Asn Pro Asp Pro Glu Arg His Asp Pro Val Ala Val Ala Asp
        355                 360                 365
Arg Ile Ser Asp Pro Gln Lys Gln Ala Arg Leu Phe Leu Gly Ile Val
    370                 375                 380
Arg Val Asp Val Lys Gln Leu Pro Pro His Leu Arg Gly Arg Val Thr
385                 390                 395                 400
Ala Gly Met Pro Ala Gln Val Ile Val Pro Thr Gly Glu Arg Thr Val
                405                 410                 415
Leu Gln Tyr Leu Phe Ser Pro Leu Arg Asp Thr Leu Arg Thr Thr Met
            420                 425                 430
Arg Glu Glu
        435
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<210> 6
<211> 100
<212> PRT
<213> Caulobacter sp. FWC1

<400> 6

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Thr Thr Asp Thr Leu Lys Phe Ala Asn Thr Gly Thr Glu Thr Phe Thr
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Ser Thr Lys Val Asp Leu Thr Gly Val Asn Asp Phe Thr Ala Ala Leu
            20                  25                  30
Asn Ala Ala Ala Ala Gly Asn Gly Gly Gly Asn Gly Ile Ile Thr Trp
        35                  40                  45
Phe Gln Tyr Gly Gly Asn Thr Tyr Ile Val Glu Asp Arg Asp Ala Gly
    50                  55                  60
Asn Thr Phe Asn Val Ala Thr Asp Ile Val Val Lys Leu Thr Gly Ala
65                  70                  75                  80
Val Asp Leu Ser Thr Ala Val Leu Ser Ala Phe Gly Arg Arg Ser Ser
                85                  90                  95
Leu Thr Leu Val
            100
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<210> 7
<211> 100

<212> PRT
<213> Caulobacter sp. FWC19

<400> 7

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Gly Arg His Val Ala Arg Leu Val Gln Leu Pro Gly Arg Pro Cys Pro
            20                  25                  30
Lys Leu Ser Asp Ala Ala Thr Thr Gly Asn Ala Ser His Lys Val Ser
        35                  40                  45
Trp Phe Val Tyr Gly Gly Asp Thr Tyr Leu Val Lys Met Ser Thr Leu
    50                  55                  60
Ala Pro Pro Ser Lys Thr Ala Arg Thr Ile Val Val Lys Leu Thr Gly
65                  70                  75                  80
Thr Thr Asn Asp Leu Thr Lys Ala Thr Phe Asp Gly Ala Ala His Thr
                85                  90                  95
Leu Thr Leu Gly
            100
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